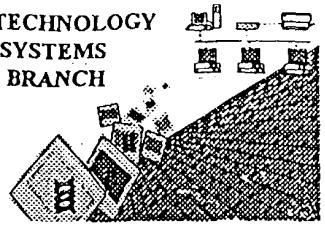
BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/821,240
Source: IFW0
Date Processed by STIC: 4/16/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221
Effective 12/13/03: **TELEPHONE: 571-272-2510; FAX: 571-273-0221**

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry directly to (EFFECTIVE 12/01/03):**
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/821,240

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	Invalid Line Length	The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
3	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
4	Non-ASCII	The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
5	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
7	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
8	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. **If intentional**, please insert the following lines for **each** skipped sequence. <210> sequence id number <400> sequence id number 000
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
10	Invalid <213> Response	Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
11	Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13	Misuse of n/Xaa	"n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid

IFWO

RAW SEQUENCE LISTING DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:25

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

```
      4 <110> APPLICANT: Khan, Nisar A.
      5       Benner, Robert
      7 <120> TITLE OF INVENTION: Gene regulator
      9 <130> FILE REFERENCE: 2183-5223US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/821,240
C--> 12 <141> CURRENT FILING DATE: 2004-04-08
     14 <150> PRIOR APPLICATION NUMBER: EP 01203748.7
     15 <151> PRIOR FILING DATE: 2001-10-04
     17 <160> NUMBER OF SEQ ID NOS: 312
     19 <170> SOFTWARE: PatentIn Ver. 2.1
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 4
     23 <212> TYPE: PRT
     24 <213> ORGANISM: Artificial Sequence
     26 <220> FEATURE:
     27 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
     29 <400> SEQUENCE: 1
     30 Leu Gln Gly Val
     31   1
     33 <210> SEQ ID NO: 2
     34 <211> LENGTH: 4
     35 <212> TYPE: PRT
     36 <213> ORGANISM: Artificial Sequence
     38 <220> FEATURE:
     39 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
     41 <400> SEQUENCE: 2
     42 Ala Gln Gly Val
     43   1
     45 <210> SEQ ID NO: 3
     46 <211> LENGTH: 6
     47 <212> TYPE: PRT
     48 <213> ORGANISM: Artificial Sequence
     50 <220> FEATURE:
     51 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
     53 <400> SEQUENCE: 3
     54 Val Leu Pro Ala Leu Pro
     55   1               5
     56 <210> SEQ ID NO: 4
     57 <211> LENGTH: 16
     58 <212> TYPE: PRT
     59 <213> ORGANISM: Artificial Sequence
     61 <220> FEATURE:
     62 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide
```

pgs 1-6

Does Not Comply
Corrected Diskette Needed

insufficient response
(give source of genetic material)

(see item 11 on Error Summary Sheet)

RAW SEQUENCE LISTING DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:25

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

```
64 <400> SEQUENCE: 4
65 Met Leu Ala Arg Arg Lys Pro Val Leu Pro Ala Leu Thr Ile Asn Pro
66   1               5                  10                  15
68 <210> SEQ ID NO: 5
69 <211> LENGTH: 7
70 <212> TYPE: PRT
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide
76 <400> SEQUENCE: 5
77 Met Leu Ala Arg Arg Lys Pro
78   1               5
80 <210> SEQ ID NO: 6
81 <211> LENGTH: 4
82 <212> TYPE: PRT
83 <213> ORGANISM: Artificial Sequence
85 <220> FEATURE:
86 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide
88 <400> SEQUENCE: 6
89 Met Leu Ala Arg
90   1
92 <210> SEQ ID NO: 7
93 <211> LENGTH: 6
94 <212> TYPE: PRT
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide
100 <400> SEQUENCE: 7
101 Val Leu Pro Ala Leu Thr
102   1               5
104 <210> SEQ ID NO: 8
105 <211> LENGTH: 5
106 <212> TYPE: PRT
107 <213> ORGANISM: Artificial Sequence
109 <220> FEATURE:
110 <223> OTHER INFORMATION: Description of Artificial Sequence:
111       pdb/1QMH/1QMH-A
113 <400> SEQUENCE: 8
114 Val Leu Pro Ala Leu
115   1               5
117 <210> SEQ ID NO: 9
118 <211> LENGTH: 4
119 <212> TYPE: PRT
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Description of Artificial Sequence:
124       pdb/4NOS/4NOS-A
126 <400> SEQUENCE: 9
127 Phe Pro Gly Cys
```

same error

RAW SEQUENCE LISTING DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:25

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

```
128   1
130 <210> SEQ ID NO: 10
131 <211> LENGTH: 4
132 <212> TYPE: PRT
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Description of Artificial Sequence: Hs.297775.1
138 <400> SEQUENCE: 10
139 Pro Gly Cys Pro
140   1
142 <210> SEQ ID NO: 11
143 <211> LENGTH: 7
144 <212> TYPE: PRT
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Description of Artificial Sequence:
149       swiss/P81272/NS2B HUMAN
151 <400> SEQUENCE: 11
152 Gly Val Leu Pro Ala Val Pro
153   1               5
155 <210> SEQ ID NO: 12
156 <211> LENGTH: 6
157 <212> TYPE: PRT
158 <213> ORGANISM: Artificial Sequence
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Description of Artificial Sequence:
162       swiss/P81272/NS2B HUMAN
164 <400> SEQUENCE: 12
165 Val Leu Pro Ala Val Pro
166   1               5
168 <210> SEQ ID NO: 13
169 <211> LENGTH: 4
170 <212> TYPE: PRT
171 <213> ORGANISM: Artificial Sequence
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Description of Artificial Sequence:
175       pdb/1FZV/1FZV-A
177 <400> SEQUENCE: 13
178 Pro Ala Val Pro
179   1
181 <210> SEQ ID NO: 14
182 <211> LENGTH: 9
183 <212> TYPE: PRT
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
189 <400> SEQUENCE: 14
190 Leu Gln Gly Val Val Pro Arg Gly Val
191   1               5
```

RAW SEQUENCE LISTING DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:25

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

193 <210> SEQ ID NO: 15
194 <211> LENGTH: 4
195 <212> TYPE: PRT
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
201 <400> SEQUENCE: 15
202 Gly Val Val Pro
203 1
205 <210> SEQ ID NO: 16
206 <211> LENGTH: 5
207 <212> TYPE: PRT
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
213 <400> SEQUENCE: 16
214 Val Pro Arg Gly Val
215 1 5
217 <210> SEQ ID NO: 17
218 <211> LENGTH: 4
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
225 <400> SEQUENCE: 17
226 Pro Arg Gly Val
227 1
229 <210> SEQ ID NO: 18
230 <211> LENGTH: 5
231 <212> TYPE: PRT
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: Description of Artificial Sequence: polypeptide
237 <400> SEQUENCE: 18
238 Met Ala Pro Lys Lys
239 1
241 <210> SEQ ID NO: 19
242 <211> LENGTH: 4
243 <212> TYPE: PRT
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
249 <400> SEQUENCE: 19
250 Leu Gln Gly Ala
251 1
253 <210> SEQ ID NO: 20
254 <211> LENGTH: 10
255 <212> TYPE: PRT
256 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:25

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

```
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
261 <400> SEQUENCE: 20
262 Val Leu Pro Ala Leu Pro Gln Val Val Cys
263   1               5                  10
265 <210> SEQ ID NO: 21
266 <211> LENGTH: 6
267 <212> TYPE: PRT
268 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
273 <400> SEQUENCE: 21
274 Ala Leu Pro Ala Leu Pro
275   1               5
277 <210> SEQ ID NO: 22
278 <211> LENGTH: 6
279 <212> TYPE: PRT
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
285 <400> SEQUENCE: 22
286 Val Ala Pro Ala Leu Pro
287   1               5
289 <210> SEQ ID NO: 23
290 <211> LENGTH: 7
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
297 <400> SEQUENCE: 23
298 Ala Leu Pro Ala Leu Pro Gln
299   1               5
301 <210> SEQ ID NO: 24
302 <211> LENGTH: 7
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
309 <400> SEQUENCE: 24
310 Val Leu Pro Ala Ala Pro Gln
311   1               5
313 <210> SEQ ID NO: 25
314 <211> LENGTH: 7
315 <212> TYPE: PRT
316 <213> ORGANISM: Artificial Sequence
318 <220> FEATURE:
319 <223> OTHER INFORMATION: Description of Artificial Sequence: oligopeptide
321 <400> SEQUENCE: 25
322 Val Leu Pro Ala Leu Ala Gln
```

FYI The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:26

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:97; Xaa Pos. 2
Seq#:98; Xaa Pos. 2

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:186; Line(s) 2400
Seq#:187; Line(s) 2413
Seq#:188; Line(s) 2426
Seq#:189; Line(s) 2439
Seq#:190; Line(s) 2452
Seq#:191; Line(s) 2465
Seq#:192; Line(s) 2478
Seq#:193; Line(s) 2491
Seq#:194; Line(s) 2504

VERIFICATION SUMMARY DATE: 04/16/2004
PATENT APPLICATION: **US/10/821,240** TIME: 15:32:26

Input Set : **A:\Sequence Listing.txt**
Output Set: **N:\CRF4\04162004\J821240.raw**

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:0
L:1278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:0